

Proximity Stages of the Semantic Connections of Terms of Applied Mechanics to Those Terms and Other Types of Vocabulary

Prof. ass. Dr. Sadete Pllana

University of Prishtina "Hasan Prishtina", Faculty of Economics, Republic of Kosovo
Email: sadete.pllana@uni-pr.edu

Dr. Dipl. Ing. Gani Pllana

University of Prishtina "Hasan Prishtina", Faculty of Mechanical Engineering, Republic of Kosovo
Email: gani.pllana@uni-pr.edu

Doi:10.5901/ajis.2016.v5n3s1p276

Abstract

These connections have an interest to be studied from the side of the conceptual volume of expression, which are put in relationship from the form, for the respective expression of the conceptual volume, from the widest to the narrowest one, from where three forms of terms get distinguished: base terms, which become the object of this study: base terms (*zinxhir, mekanizëm/chain, mechanism*), foundation term (mainly two worded) (*mekanizëm katërhallkësh/four – bar mechanism and peripheral terms* (mainly more than two worded) (*mekanizëm katërhallkësh i çernieruar/hinged – four – bar mechanism*). This classification directs the studies in the field of the terminological vocabulary of the respective field, in subordination (depending) on the volume of the concept, as well as from the side of the form of expression of the concept, therefore, of the term itself.

Keywords: Applied mechanics, foundation term, peripheral terms.

1. Introduction

Within a scientific-technical text, as may be noted in a text of the field of Applied Mechanics (AM) (Alb. *Mekanika e Aplikuar (MA)*), but also in the formalized way, the terms, by conveying a particular information, enter in relation to each other as well as with units of other types of vocabulary based on the meanings expressed by each of them. The units can create syntagmatic structure, in which the relationships are expressed directly, as, for example, *boshti rrotullon (shaft rotates)*, *aksi rrotullohet (axis turns)* or *aksi mbështetet (axis is supported)*, *rrota rrotullon (wheel rotates)* or *rrota rrotullohet (wheel turns)*, but they can also form on the basis of conceptual relations, as, for example, *çift (pair)* and *lidhje (linkage)*, *hallkë (link)* and *element (element)*. On links built between lexical units with each other, different degrees of closeness are revealed, based on the meanings they express. So we have a semantic link of a such a narrow proximity, that they can be seen as internal organic links, wherein the defining element emerges as a feature of the concept of the defined element as, eg, *ingranohet in dhëmbi ingranohet (tooth is engaged)*, *shtyn in gunga shtyn (valvolën) (cam pushes) (valve)*, *lëkundet in bilanci lëkundet (rocker swings)*, *rrotullohet in manivela rrotullohet (crankshaft turns)*, *transmeton in boshti transmeton (shaft transmits)*, *boshti rrotullon (shaft rotates)*, *boshti rrotullohet (shaft turns)*, *aksi rrotullohet (axis turns)*, *mbështetet in aksi mbështetet (axis is supported)*.

2. Concept Features, Expressed by Defining Unit

In the most general case the features of the concept expressed by the defining unit, become the identifier of the concept itself marked by the respective term. Thus, for example the feature *lëkundet (swings, rocks)*, reveals the identity of *bilancierit (rocker)*, *rrotullon (rotate)* and *rrotullohet (turns, is rotated)* the features of the wheel, etc..

As it is obvious, more direct connection are placed between the terms and the non-terminological textbook vocabulary, within which the features of concepts expressed by the terms are also revealed. In this case we are dealing with internal connections, which are expressed in the constraints of the defining element of connectivity, where it appears that its combining ability is limited to certain terms like *rrotullon* with: *bosht, rrotë, hallkë* (Engl. shaft, wheel, link), etc..

Looking at the connections in which the term enters with other units of non-terms, three stages of connections can

be distinguished:

2.1 Direct connections, as internal organic connections, where the defining elements emerge as features of the concepts of terms, as can be seen in the following examples:

In Albanian:

Hallkë - lidh, lidhet, rrotullon, rrotullohet, transmeton.

Aks - rrotullohet, kryqëzohet, mbështet, lidh, lidhet.

Bosht - rrotullon, rrotullohet, mbështet, transmeton (moment përdredhës).

In English:

link – connects, (is connected), rotates, turns (is rotated) transmit (convey).

axis – turns, (is rotated), is crossed, supports (bears),

links, is linked.

shaft – rotates, turns, support, transmits.

Indirect connection, where the determining element is the secondary feature of the concept of the term.

In Albanian:

Hallkë – zë pozicion, vendoset (vendos), zhvendos, lëviz, bart, etj.

Bosht - zë pozicion, vendos lëviz, bart.

In English:

link – is located, is fixed, take position, displace, move, bear

shaft – is located, move, rotate (turn), bear.

2.2 The free connections, in which the term comes with the usual vocabulary. As a general rule, the term is more or less connected with each unit, starting with: është, ka, quhet (is, has, is called).

In a summary we can present with few examples all three types of connections:

1. Internal connection:

In Albanian:

Hallkë: "Hallka A lidhet me hallkën B."

Bosht: "Boshti A rrotullon boshtin B."

Aks: "Aksi A mbështet detalin B."

In English:

link: "Link A is connected to link B."

shaft: "Shaft A rotates shaft B."

axis: "Axis A supports part B."

2. Indirect connection:

In Albanian:

Hallkë: "Hallka zhvendoset nga pozicioni A në pozicionin B."

Bosht: "Boshti zhvendoset nga pozicioni A në pozicionin B."

Aks: "Aksi zhvendoset në drejtimin e dhënë."

In English:

link: "Link removes from position A to position B."

shaft: "Shaft removes from position A to position B."

axis: "Axis removes into the given direction."

3. Free connection:

In Albanian:

Hallkë: "Hallka paraqitet në vizatim."

Bosht: "Boshti paraqitet në skemë."

Aks: "Aksi paraqitet në figurë."

Hallkë: "Hallka është pjesë përbërëse e çiftit."

Bosht: "Boshti përbëhet nga trupi dhe pernat (qafat)."

Aks: "Aksi është detal që nuk transmeton moment përdredhës."

In English:

link: "Link is shown on the drawing."

shaft: "Shaft is shown on the scheme."

axis: "Axis is presented."

link: "Link is a part of the pair."

shaft: "Shaft consists of (is constituted of) the body of pins."

axis: "Axis is called a part that does not transmit torsional moment."

3. Conclusion

Relating to a given text from the presented field a study of the vocabulary can be done where it can be seen as to how these three types of vocabularies enter e relationship with one another. Of course, here the prime position is held by the terminological vocabulary, which can appear formalized through the connections in which the terms enter with one another, while the second position is occupied by the vocabulary that marks the interior features of the concepts marked by the terms, which are of particular importance to present them as part of the definitions. These features can also be derived directly from the text, but they can also be derived in an intuitive manner. These key terms can be derived directly on the basis of their value in the system.

Component elements of phrase terms appear as internal connections between them, and as such they should be looked at in relationship to each other. Thus, eg in *rrotë e dhëmbëzuar* (*dentated wheel*), the defining element emerges as an internal connection of the defined part, marked from the element: *rrotë* (*wheel*). It can also be said for other cases: *rrip i dhëmbëzuar* (*dentated belt*) i.e. *i dhëmbëzuar* (*dentated*) in relation to: *rrip* (*belt*), *boshti i dhëmbëzuar* (*dentated shaft*) in relation to: *bosht* (*shaft*). This means that the defining elements of the phrase terms should also be given separately, by connecting them always after the defined element.

References

- Beer, F., etc.: "Vector Mechanics for Engineers Statics", McGraw-Hill, New York, 2004.
Buckch, H.: "Getriebewörterbuch- Dictionary of mechanisms", Bauverlag GmbH-Wiesbaden und Berlin, 1976.
Duro, A.: "Termi dhe fjala në gjuhën shqipe", Tiranë, 2009.
Felber, H.: "Terminology manual", UNESCO and Infoterm, Paris, 1984.
"Fjalor i termave themelorë të mekanikës", Tiranë, 2002.
Karaulli, P. & Çelo, G.: "Mekanika e aplikuar në makina I", Tiranë, 1974.
Kurti, Ç.: "Fjalor politeknik anglisht-shqip", Tiranë, 1991.
Norton, R.: "An Introduction to the Thynsis and Analysis of Mechanisms and Machines" Massachusetts, 2004.
Schwarz, C.: "The Chambers Dictionary", Edinburgh, 1993.
Wüster, E.: "Einführung in die allgemeine Terminologielehre und terminologische Lexikographie", 3. Auflage. Romanistischer Verlag, Bonn, 1991.